

Attorney's Docket No.: 07977/150003/US3336/3421D1D1

39. (New) An ion doping apparatus according to claim 38, further comprising a means for irradiating a laser beam having an elongated cross section.

40. (New) An ion doping apparatus comprising:  
a means for generating an ion current having an elongated cross section;  
a means for radiating said ion current to a substrate to be processed in a direction oblique to a surface of said substrate; and  
a means for accelerating a specified ion contained in said ion current.

41. (New) An ion doping apparatus according to claim 40, further comprising a means for irradiating a laser beam having an elongated cross section.

42. (New) An ion doping apparatus comprising:  
a means for generating an ion current having an elongated cross section;  
a means for radiating said ion current to a substrate to be processed in a direction oblique to a surface of said substrate; and

Attorney's Docket No.: 07977/150003/US3336/3421D1D1

a stage which moves in a direction substantially perpendicular to said elongated cross section of said ion current.

43. (New) An ion doping apparatus according to claim 42, further comprising a means for irradiating a laser beam having an elongated cross section.

44. (New) An ion doping apparatus comprising:  
a means for generating an ion current having an elongated cross section;  
a means for radiating said ion current to a substrate to be processed in a direction oblique to a surface of said substrate;  
a means for accelerating said ion current; and  
a stage which moves in a direction substantially perpendicular to said elongated cross section of said ion current.

45. (New) An ion doping apparatus according to claim 44, further comprising a means for irradiating a laser beam having an elongated cross section.--